

5,231,670) is respectfully traversed. Goldhor et al. may be directed to similar subject matter as the present invention. However, they are not directed to the same problems as the present invention, and do not disclose any solution which anticipates the present invention.

It should be noted that the present invention is primarily concerned with speech dictation or "speech to text" recognition systems wherein the spoken terms are recognized for word processing purposes. Rather, the present invention is directed to speech or voice recognition of spoken commands used to control systems for a wide variety of purposes including control commands which could be used for the control of speech recognition word processing systems. Applicants make this distinction because the Goldhor system deals with both command recognition and spoken text recognition. However, Goldhor et al. deal with command recognition and processing in a manner quite different from Applicants' processing of commands. As will be hereinafter shown, the Examiner in applying Goldhor's disclosure does not distinguish Goldhor's processing of commands from Goldhor's processing of spoken text and seems to be indiscriminately combining elements from Goldhor's command processing with Goldhor's spoken text processing in the attempt to anticipate Applicants' invention.

The present invention is directed to command control technology, wherein, for example, a user may navigate through a computer system's graphical user interface (GUI) by the user speaking the commands which are customarily found in the systems' menu text, icons, labels, buttons, etc.. Many deficiencies in speech recognition both in word processing and in command technologies are due to inherent voice recognition errors due in part to the status of the technology and in part to the variability of user speech patterns and the user's ability to remember the specific

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commands necessary to initiate actions. In word processing visual feedback which confirms input is inherent, since the purpose of the process is to translate from the spoken to the visual. However, in speech recognition driven command and control systems, there is a constant need for switching back and forth from a natural speech input mode of operation, when the user is requesting help or making other queries, to command mode of operation, when the user is issuing actual commands. This tends to be very tiresome and impacts user productivity, particularly when there is an intermediate display feedback. This limitation in speech recognition systems is unfortunate because help functions has been one area where speech recognition technology has the opportunity to be much more user friendly than conventional keyboard and mouse input systems in giving the user rapid and heuristic feedback to hone in on the right commands to perform the desired functions.

The present invention affords a solution to the above limitations by providing a speech recognition system which does not switch modes of operation when interpreting speech queries, such as help queries or receiving actual spoken commands. The system handles both concurrently and seamlessly in the same operation mode. The present invention is directed to an interactive computer controlled display system with speech recognition comprising means for predetermining a plurality of speech commands each associated with a corresponding plurality of system actions in combination with means for concurrently detecting speech commands and speech queries for locating commands. There is also provided means responsive to a detected speech command for carrying out the system action corresponding to the command and means responsive to a detected speech query for attempting to locate commands applicable to said query. The system also includes means for displaying the detected speech query together with means for displaying located



commands applicable to said query.

Goldhor et al. is directed among other things to sorting spoken text to be processed from interspersed spoken control commands but it does not disclose displaying recognized commands for any purpose let alone commands located in response to speech queries. Goldhor et al. certainly do not disclose displaying both the detected speech query requesting commands, and a listing of potential commands for fulfilling the query as set forth in claims 2-5, 7-10, and 12-15.

The functioning of the Goldhor system is summarized in its Abstract:

".....enable the system and method to process both simple spoken words as well as commands and to provide the necessary text generation in response to the spoken words or execute an appropriate function in response to a command."

Please note that text is generated, i.e. displayed in response to spoken words but functions are executed in response to commands without any mention of any command display. This is the tenor of the entire Goldhor disclosure. Recognized text is displayed but recognized commands are only carried out but not displayed.

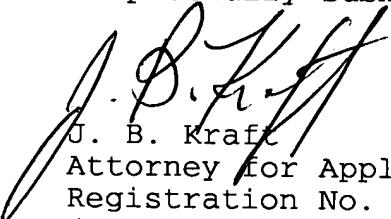
Furthermore, Goldhor et al. do disclose displaying potential commands in response to speech queries. In this connection, the Examiner has pointed to col. 4, lines 39-57, and col 8, lines 3-38 for this disclosure. When these sections discuss displaying sets of candidates and best match candidates, they are discussing only candidates for detected text words used for text processing. Nowhere in these sections is there any discussion of displaying commands or proposed commands in response to speech queries.

It must be emphasized that Goldhor et al. are in no way concerned with recognizing spoken commands through any method which involves display of proposed commands. It

should be noted from the Goldhor patent that only after they have fully described their displayed text processing matched candidates procedure do they commence in cols. 9-12 to describe their command recognition and handling. This command recognition and handling just involves the recognition of members of a set of predetermined commands, e.g., "SCRATCH THAT; FORWARD N; BACKWARD N; BACKTRACKING." etc.. There is no suggestion of displaying commands for any purpose, let alone storing for each potential command, a plurality of a set of speech terms, and then displaying the appropriate commands in response to the input of a relevant speech term. How can such a reference anticipate an invention under 35 U.S.C. 102(b)?

In view of the foregoing, claims 1-15, all of the claims in the present patent application are submitted to be in condition for allowance, such allowance is respectfully requested.

Respectfully submitted,



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